US EPA Comments on In Work Packages 108, 109, 110, and 111 containing Draft Survey Units Project Reports for Zones A through Q Comments dated June 29, 2015

Thank you for sending the Draft Work Packages 108, 109, 110, and 111, which include Survey Unit Project Reports (SUPRs) for Zones A through Q in Parcel D-1 as part of the Phase II Sanitary Sewer and Storm Drain Removal at Hunters Point, (DCN: ITSI-0808-0004-0052) dated May 2015. The reports were prepared for the U.S. Navy Base Realignment and Closure (BRAC) Program Management Office West by Gilbane Federal of Walnut Creek, California. The work packages describe the final status surveys (FSSs) that were conducted in the survey units following removal of storm drains, sanitary sewers and manholes. According to the reports, no fill material was imported to the site to bring the surface to grade. The reports include summaries of laboratory measurement data, maps showing the sample locations and static gamma radiation measurements, photographs and other supporting documents.

The report addresses the Radionuclides of Concern (ROCs). Table 2-2 lists the ROCs and associated annual dose rates as calculated using U.S. DOE RESRAD Version 6.5. The report cites U.S. NRC and U.S. EPA regulations as the basis for the release criteria for ^{90}Sr and ^{137}Cs, but provides no other information regarding the release criteria derivations. A reformatted version of Table 2-2 is listed below, together with a similar table of values using the current version of the PRG calculator.

Draft SUPRs Abstract Parcel D-1 Table 2-2

Radionuclide	Soil			
	Outdoor Worker	Residual Dose	Residential	Residual Dose
	pCi/g	mrem/y	pCi/g	mrem/y
^{90}Sr	10.8	0.1931	0.331	1.648
^{137}Cs	0.113	0.2142	0.113	0.2561
^{226}Ra[a]	1.0	6.342	1.0	17.24

[a] By agreement betw een the Navy, U.S. EPA Region 9, California DTSC and California DPH (date and transmittal document unknow n), the Preliminary Remediation Goal for ^{226}Ra w as established for the suburban residential scenario at 1 pCi/g above background w ith a risk of 10^{-4} and a dose rate of 5 mrem/year, using a risk coefficient of 7% per 100 rem (BEIR V) and a 30 year exposure duration.

U.S. EPA PRG Calculator Values (10^{-4} Risk) 16-Jun-2015

Radionuclide	Soil			
	Outdoor Worker (25 year exposure duration)	Inferred Dose Rate at 10^{-4} Risk	Suburban Residential (26 year exposure duration)	Inferred Dose Rate at 10^{-4} Risk
	pCi/g	mrem/y	pCi/g	mrem/y
^{90}Sr	998	4.73	6.63	4.55
^{137}Cs	11.2	4.73	5.09	4.55
^{226}Ra[a]	2.52	4.73	0.666	4.55

[a] By agreement betw een the Navy, U.S. EPA Region 9, California DTSC and California DPH (date and transmittal document unknow n), the Preliminary Remediation Goal for ^{226}Ra w as established for the suburban residential scenario at 1 pCi/g above background w ith a risk of 10^{-4} and a dose rate of 5 mrem/year, using a risk coefficient of 7% per 100 rem (BEIR V) and a 30 year exposure duration.

[b] The online PRG calculator http://epa-prgs.ornl.gov/radionuclides/ currently uses a risk coefficient of 8.46% per 100 rem (ref: Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclide*s EPA 402-R-99-001 dated September 1999.

[c] The PRG calculator has been modified several times since the earlier agreement w ith the Navy and is updated continuously. The current calculations w ere performed on June 16, 2015.

Neither the Radionuclides of Concern (ROCs) nor the release criteria are listed in the report but are referenced in the SUPRs. However, the radionuclides for which the report's risk analysis was performed are ^{90}Sr, ^{137}Cs and ^{226}Ra. The risk associated with the sum of the average concentrations of the ROCs may not exceed Superfund's nominal risk management range of 10^{-6} to 10^{-4}. Using the current version of EPA Superfund program's PRG (Preliminary Remediation Goals) calculator at http://epa-prgs.ornl.gov/radionuclides/, the soil concentrations that are associated with a risk of 10^{-4} in the suburban residential land use scenario are as follows:

^{90}Sr	6.63	pCi/gm
^{137}Cs	5.09	pCi/gm
^{226}Ra	0.666	pCi/gm*

*By previous agreement between U.S. EPA Region 9, the California Department of Toxic Substances Control (DTSC) and the California Department of Public Health (CalDPH), the soil concentration that is associated with a risk of 10^{-4} is taken to be 1.00 pCi/gm above the site's reference area background concentration.

In addition to the radionuclides of concern, benzo(a)pyrene, benzo(b)fluoroanthene, arsenic and manganese are associated with Zones F, H, and P. These chemicals of concern are not discussed in the report and are not included in the report's risk analysis for residual contaminants. EPA anticipates that they will, however, addressed through other documents.

The Navy's risk analysis does not conform to EPA's. Although the Navy's risk analysis is sufficient in this case, the tables below have used EPA's risk coefficient with the reported mean soil concentrations to evaluate the risk associated with the survey unit. The estimate of both dose and risk is lower than the Navy's estimate in all cases except two, based on the same average concentrations in the trench unit and backfill. Note that in all survey units except Zone G and L, the average ^{226}Ra concentration was less than the reference area ^{226}Ra concentration, and therefore the net concentration was taken as zero for the purpose of dose/risk evaluation. The Navy's reports adequately demonstrate that the soil concentrations are sufficiently low that they fall within EPA's risk management range of 10^{-6} to 10^{-4} estimated cancer risk.

While formatting changes could make the reports more explicitly address CERCLA measures and help provide the reader with more context, EPA concurs with the Navy's finding that the Work Packages 108, 109, 110, and 111 containing are suitable for release from institutional controls with respect to radioactive contamination using Superfund criteria. EPA therefore accepts the present version of the four reports.

Below are tables for these Survey Units showing the Navy's contractor's dose and risk estimates using RESRAD and EPA's dose and risk estimates using the PRG's to directly estimate the risk from measured contaminant concentrations.

Work Package 108

Dose and Risk Modeling Results -- Zone A

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.125	--	--	0.0542	1.885E-06
^{137}Cs	0.023	--	--	0.0130	4.519E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5419	7.018E-06	0.0672	2.337E-06
Trench Unit					
^{90}Sr	0.129	--	--	0.0559	1.946E-06
^{137}Cs	0.022	--	--	0.0124	4.322E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5558	7.186E-06	0.0683	2.378E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone B

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.119	--	--	0.0516	1.795E-06
^{137}Cs	0.021	--	--	0.0119	4.126E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5238	6.775E-06	0.0634	2.207E-06
Trench Unit					
^{90}Sr	0.079	--	--	0.0342	1.192E-06
^{137}Cs	0.020	--	--	0.0113	3.929E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.3598	4.694E-06	0.0455	1.584E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone C

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.099	--	--	0.0429	1.493E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4388	5.686E-06	0.0536	1.866E-06
Trench Unit					
^{90}Sr	0.087	--	--	0.0377	1.312E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.3902	5.072E-06	0.0484	1.685E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone D

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.108	--	--	0.0468	1.629E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4136	5.365E-06	0.0575	2.002E-06
Trench Unit					
^{90}Sr	0.131	--	--	0.0568	1.976E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4937	6.378E-06	0.0675	2.349E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone E

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.115	--	--	0.0498	1.735E-06
^{137}Cs	0.020	--	--	0.0113	3.929E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4136	5.365E-06	0.0611	2.127E-06
Trench Unit					
^{90}Sr	0.119	--	--	0.0516	1.795E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4937	6.378E-06	0.0623	2.168E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

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Dose and Risk Modeling Results -- Zone F

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.105	--	--	0.0455	1.584E-06
^{137}Cs	0.023	--	--	0.0130	4.519E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4711	6.123E-06	0.0585	2.036E-06
Trench Unit					
^{90}Sr	0.117	--	--	0.0507	1.765E-06
^{137}Cs	0.022	--	--	0.0124	4.322E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5177	6.705E-06	0.0631	2.197E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone G

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.126	--	--	0.0546	1.900E-06
^{137}Cs	0.023	--	--	0.0130	4.519E-07
^{226}Ra	0.026	--	--	0.1122	3.904E-06
Total		0.4711	6.123E-06	0.1798	6.256E-06
Trench Unit					
^{90}Sr	0.110	--	--	0.0477	1.659E-06
^{137}Cs	0.047	--	--	0.0265	9.234E-07
^{226}Ra	0.063	--	--	0.2718	9.459E-06
Total		0.5177	6.705E-06	0.3460	1.204E-05

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone H

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.121	--	--	0.0524	1.825E-06
^{137}Cs	0.028	--	--	0.0158	5.501E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4711	6.123E-06	0.0683	2.375E-06
Trench Unit					
^{90}Sr	0.092	--	--	0.0399	1.388E-06
^{137}Cs	0.018	--	--	0.0102	3.536E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5177	6.705E-06	0.0500	1.741E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone I

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.131	--	--	0.0568	1.976E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4711	6.123E-06	0.0675	2.349E-06
Trench Unit					
^{90}Sr	0.097	--	--	0.0420	1.463E-06
^{137}Cs	0.019	--	--	0.0107	3.733E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5177	6.705E-06	0.0528	1.836E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone J

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.120	--	--	0.0520	1.810E-06
^{137}Cs	0.026	--	--	0.0147	5.108E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.4711	6.123E-06	0.0667	2.321E-06
Trench Unit					
^{90}Sr	0.120	--	--	0.0520	1.810E-06
^{137}Cs	0.034	--	--	0.0192	6.680E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.5177	6.705E-06	0.0712	2.478E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

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Dose and Risk Modeling Results -- Zone K

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.122	--	--	0.0529	1.840E-06
^{137}Cs	0.021	--	--	0.0119	4.126E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.07624	1.089E-06	0.0647	2.253E-06
Trench Unit					
^{90}Sr	0.138	--	--	0.0598	2.081E-06
^{137}Cs	0.021	--	--	0.0119	4.126E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.08191	1.162E-06	0.0717	2.494E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone L

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.143	--	--	0.0620	2.157E-06
^{137}Cs	0.026	--	--	0.0147	5.108E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.3389	4.465E-06	0.0767	2.668E-06
Trench Unit					
^{90}Sr	0.135	--	--	0.0585	2.036E-06
^{137}Cs	0.031	--	--	0.0175	6.090E-07
^{226}Ra	0.017	--	--	0.0733	2.553E-06
Total		0.4727	7.316E-06	0.1494	5.198E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone M

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.155	--	--	0.0672	2.338E-06
^{137}Cs	0.021	--	--	0.0119	4.126E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.07624	1.089E-06	0.0790	2.750E-06
Trench Unit					
^{90}Sr	0.142	--	--	0.0615	2.142E-06
^{137}Cs	0.022	--	--	0.0124	4.322E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.08191	1.162E-06	0.0740	2.574E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone N

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.130	--	--	0.0563	1.961E-06
^{137}Cs	0.032	--	--	0.0181	6.287E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.1169	1.675E-06	0.0744	2.589E-06
Trench Unit					
^{90}Sr	0.143	--	--	0.0620	2.157E-06
^{137}Cs	0.025	--	--	0.0141	4.912E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.1119	1.570E-06	0.0761	2.648E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

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Dose and Risk Modeling Results -- Zone P

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.152	--	--	0.0659	2.293E-06
^{137}Cs	0.020	--	--	0.0113	3.929E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.2340	3.093E-06	0.0772	2.686E-06
Trench Unit					
^{90}Sr	0.159	--	--	0.0689	2.398E-06
^{137}Cs	0.020	--	--	0.0113	3.929E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.2431	3.209E-06	0.0802	2.791E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Dose and Risk Modeling Results -- Zone Q

Radionuclide	Reported Mean Soil Concentration (net above background) pCi/gm	Navy (RESRAD) Estimated Dose Rate mrem/yr	Navy (RESRAD) Estimated Cancer Risk	EPA (PRG Calculator) Estimated Dose Rate mrem/yr	EPA (PRG Calculator) Estimated Cancer Risk
Backfill					
^{90}Sr	0.114	--	--	0.0494	1.719E-06
^{137}Cs	0.020	--	--	0.0113	3.929E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.3154	4.127E-06	0.0607	2.112E-06
Trench Unit					
^{90}Sr	0.104	--	--	0.0451	1.569E-06
^{137}Cs	0.021	--	--	0.0119	4.126E-07
^{226}Ra	0.000	--	--	0.0000	0.000E+00
Total		0.2929	3.850E-06	0.0569	1.981E-06

NOTE: The PRG Calculator's slope factors use a risk/dose coefficient of 8.46X10-7 per mrem as described in Federal Guidance Report No. 13 *Cancer Risk Coefficients for Environmental Exposure to Radionuclides* EPA 402-R-99-001 dated September 1999.

Please feel free to contact me any time if you would like to discuss these comments.